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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/729,493

12/05/2003

Sang-hee Kim

5649-1201

1963

20792 7590 05/27/2009  
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EXAMINER

VUONG, QUOCHIE B

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

05/27/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/729,493	<b>Applicant(s)</b> KIM, SANG-HEE	
	<b>Examiner</b> Quochien B. Vuong	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 and 20-23 is/are allowed.
- 6) ☒ Claim(s) 24-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments, see Applicant's remarks, filed 02/12/2009, with respect to claims 1-18 and 20-23 have been fully considered and are persuasive. The previous rejection of claims 1-18 and 20-23 has been withdrawn.

Applicant's arguments filed 02/12/2009 which respect to claims 24-27 have been fully considered but they are not persuasive. Claim 24 does not recite comparing the first distance to the second distance and establish direct link protocol communications if the first distance is less than the second distance as in claims 1 and 16.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wellig et al. (US 6,580,704) in view of Grube et al. (US 5,666,661) and Moore et al. (US 7,000,015).

Regarding claim 24, Wellig et al. (figure 1) disclose a wireless local area network (1), comprising: an access point (11); and a plurality of wireless local area network stations (12 and 13), each station including a processor for establishing communications between a first station and a second station using a direct link protocol

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by checking the received signal strength between the first and second stations (column 10, line 40 – column 13, line 4) and using the received signal strength measurement to determining a first distance between the first station and the second station (figure 5).

Wellig et al. do not disclose wherein each station comprising a location tracking device; wherein the processor determines a distance between the station and a second stations in the wireless local area network and a distance between the station and the access point, wherein the processor determines based on the respective distances between the station and the second station in the wireless local area network and between the station and the access point whether to establish direct link protocol communications between the station and the second station in the wireless local area network. However, Wellig et al. do disclose establish direct link protocol when the first station and the second station are close enough (column 10, lines 1-2). And Grube et al. disclose each station comprising a location tracking device; wherein the processor determines a distance between the station and a second of the stations in the wireless local area network, wherein the processor determines based on the respective distances between the station and the second station in the wireless local area network and a threshold distance and the access point whether to establish direct link protocol communications between the station and the second station in the wireless local area network (column 2, lines 15-30; and column 3, lines 1-38). Further more, Moore et al. disclose determining a distance between the first station and the access point (see figure1 and column 29, lines 49-67). Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to adapt the teaching

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of comparing the first distance with a threshold of Grube et al. and further modify the distance threshold comparison with the distance between the first station and the access point of Moore et al. to the method of Wellig et al. in order to ensure the signal quality of direct mode while efficiently utilizing the wireless local area network resource.

Regarding claim 25, Grube et al. disclose wherein the location tracking device comprises a global positioning system receiver (column 2, lines 40-43).

Regarding claim 26, Grube et al. disclose wherein processor elects to establish direct link protocol communications between the station and the second station in the wireless network if the distance between the station and the second station in the wireless local area network is less than the distance between the station and the access point. (column 3, lines 1-38).

Regarding claim 27, Wellig et al., Grube et al., and Moore et al. disclose the method of claim 24; in addition, it would have been obvious for distance between the station and second station be a predetermined multiple of the distance between the station and the access point depending on the system design preference.

### ***Allowable Subject Matter***

Claims 1-18 and 20-23 are allowed over the cited prior art.

Regarding claims 1-18 and 20-23, the cited prior art fails to disclose the claimed invention with the reasons set forth in the Applicant's remark filed 02/12/2009, pages 7-16.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B. Vuong whose telephone number is (571) 272-7902. The examiner can normally be reached on M-F 9:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quochien B Vuong/  
Primary Examiner, Art Unit 2618